

REMARKS

In response to the Final Office Action mailed on January 23, 2008, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1, 4, 6, 8, 16, and 21 have been amended, leaving Claims 1-21 for consideration upon entry of the present amendments. No new matter has been added by the amendments. Support for the amendments may be found in the application, e.g., at paragraph 49 and in FIG. 6.

Applicants acknowledge with appreciation the withdrawal of the rejections of claims 1-21 made in the previous Office Action. Although these claims have been rejected on new grounds, Applicants respectfully submit that the claims, as amended, are allowable for at least the reasons given below.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-3, 6-8, 10-13, 15-16 and 18-21 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Redmond (International Publication No. WO 02/054708), hereinafter referred to as “Redmond”, in view of Peters et al. (U.S. Patent No. 6,415,373), hereinafter referred to as “Peters”. Claims 4 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Redmond in view of Peters and further in view of U.S. Patent No. 6,862,594 to Saulpaugh (hereinafter “Saulpaugh”). Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Redmond in view of Peters and further in view of U.S. Patent Application Publication No. 2004/0236785 to Greiner (hereinafter “Greiner”). Claims 9 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Redmond in view of Peters and further in view of U.S. Patent No. 6,486,892 to Stern (hereinafter “Stern”). These rejections are respectfully traversed.

According to exemplary embodiments, data files are segmented into smaller bundles and distributed to storage devices connected to various networks, and their locations may be tracked in a network available directory. When the segmented files need to be distributed to a new

device, the directory is queried to locate the smaller bundles. The best sources for distribution of the segmented files are determined, and the smaller bundles are transmitted from the multiple sources to the target. See, e.g., paragraph 17 of the specification. As illustrated, e.g., in FIG. 6 and described in paragraph 49 of the application, directory information 600 is used to track the locations of segmented data files so that they may be retrieved and then reassembled on a target device. The directory information 600 includes data files 602, the segments 604 that make up each data file, and the source locations 606 of bundles that make up each segment. The source locations may include, for example, any of the storage devices 22 at the centralized locations and storage devices 28 at the customers' sites. FIG. 7 of the application illustrates a process for selecting bundles that make up segments of a data file from various source locations and how the selected bundles are delivered to a target device and reassembled.

Claim 1, for example, recites a method for providing delivery of a segmented data file. The method includes receiving a request to send the segmented data file to a target device. Although not considered necessary for patentability, claim 1 has been amended to clarify that each segmented data file contains one or more data bundles. The method further comprises querying a directory for one or more segments included in the segmented data file. Claim 1 has further been amended to clarify that at least one of the one or more segments included in the segmented data file corresponds to a plurality of source storage device locations. The directory lists one or more data files and the one or more segments that make up each data file, and the directory lists source storage device locations containing data bundles that correspond to the at least one of the one or more segments. For at least one of the one or more segments, the method further includes determining, from the directory, one or more of the source locations containing a data bundle corresponding to the at least one of the one or more segments and selecting one of the source storage device locations for the at least one of the one or more segments. The data bundle is retrievable from any of the determined source storage device locations corresponding to the at least one of the one or more segments. The method further comprises transmitting the data bundle from the selected source storage device location to the target device.

The Action relies on Redmond for all the features recited in claim 1 except for the steps of querying a directory and selecting one of the source locations. The Action relies on Peters for the features missing from Redmond.

Redmond discloses a system and method for providing load balanced secure media content and data delivery in a distributed computing environment. In Redmond, media content is segmented and encrypted. As illustrated in Figure 1 and explained in the Abstract of Redmond, a complete set of individual encrypted segments is staged into a plurality of intermediate control nodes (17, 19). Individual encrypted segments are mirrored from the staged complete set to a plurality of intermediate servers (21a-21b, 23a-23b). In responses to request from clients (11) for media content at the centralized control center (15), each individual encrypted segment in the set is received from one of an intermediate control node and an intermediate server optimally sited from the requesting client. The individual encrypted segments are reassembled into media content for media playback.

In Redmond, the decision to assemble segmented data files is based on pulses from the neuro nodes and edge servers, indicating load and operational status. In particular, as explained at page 6, line 20 through page 7, line 7 and depicted in Figure 2 of Redmond, segments are received from the neuro nodes 43 and edge servers 44 based on the load and operational status of the neuro nodes and edge servers. The smart client 41 reassembles the individual encrypted segments and begins media playback upon receiving a sufficient number of segments.

While Redmond discusses retrieval and assembly of data segments, Redmond is silent as to the determination of a source location of a data bundle and selection/retrieval of a data bundle, the data bundle contained within each segmented data file as set forth in amended claim 1. In fact, Redmond does not mention data bundles contained within data segments at all.

Thus, Redmond fails to disclose or suggest that each segmented data file contains one or more data bundles, that a data bundle is retrievable from any of the determined source storage device locations corresponding to the at least one of the one or more segments, and transmitting the data bundle from the selected source storage device location to the target device as set forth in claim 1.

Further, as admitted in the Office Action, Redmond fails to disclose or suggest querying a directory for one or more segments included in the segmented data file, the directory listing one or more data files and the one or more segments that make up each data file, and the directory

listing source storage device locations containing data bundles that correspond to the at least one of the one or more segments, and selecting one of the source storage device locations for the at least one of the one or more segments.

The Action relies on Peters for the claimed features missing from Redmond. In particular, the Action points to col. 13, ll. 9-65 of Peters, which describe how a data file is stored in segments, copies of which are randomly distributed among multiple storage units. The “directory” described in Peters refers to a directory used by an operating system in a computer to locate a file with a memory. See, e.g., col. 13, ll. 44-48. This “directory” is not the same as a directory listing source storage device locations as set forth in amended claim 1. Moreover, while Peters discusses use of a segment table to indicate locations of each segment on storage units in a computing system, Peters (like Redmond) is silent as to data bundles contained within data segments. Thus, Peters fails to disclose or suggest a directory listing source storage device locations containing data bundles that correspond to the at least one of the one or more segments, and selecting one of the source storage device locations for the at least one of the one or more segments. Further, Peter (like Redmond) fails to disclose or suggest that each segmented data file contains one or more data bundles, that a data bundle is retrievable from any of the determined source storage device locations corresponding to the at least one of the one or more segments, and transmitting the data bundle from the selected source storage device location to the target device. As Peters fails to make up for the deficiencies of Redmond, claim 1 is considered allowable.

Claims 16 and 21 have been amended in a manner similar to claim 1. Accordingly, Applicants respectfully submit that claims 16 and 21 are patentable over Redmond in view of Peters for at least the reasons given above for claim 1. Claims 2-3, 6-8, 10-13, and 15 depend from claim 1 and thus are believed to be allowable at least due to their dependency on claim 1. Claims 18-20 depend from claim 16 and thus are believed to be allowable at least due to their dependency on claim 16.

With regard to claims 4 and 17, these claims depend from and include all the features recited in claim 1 and 16, respectively. The Action points to Saulpaugh for the claimed features missing from Redmond and Peters.

Saulpaugh discloses a method and apparatus to discover services using flexible search criteria. Saulpaugh does not disclose or suggest the features of claims 1 and 16 missing from Redmond and Peters, as explained above. Thus, Saulpaugh fails to make up for the deficiencies of Redmond and Peters with regard to the features recited in independent claims 1 and 16. Claims 4 and 17 depend from claims 1 and 16, respectively, and claims 4 and 17 are thus considered allowable over any combination of Redmond, Peters, and Saulpaugh.

With regard to claim 5, this claim depends from and includes all the features of claim 1. The Action relies on Greiner for the features of claim 5 missing from Redmond and Peters.

Greiner discloses a method and system for transmitting a digital image over a communication network. Greiner does not disclose or suggest the features of claim 1 missing from Redmond and Peters, as explained above. Thus, Greiner fails to make up for the deficiencies of Redmond and Peters with regard to the features recited in independent claim 1. Claim 5 depends from claim 1, and claim 5 is thus considered allowable over any combination of Redmond, Peters, and Greiner.

With regard to claims 9 and 14, these claims depend from and include all the features recited in claim 1. The Action relies on Stern for the claimed features missing from Redmond and Peters.

Stern discloses a system and method for accessing, manipulating, and viewing internet and non-internet related information and for controlling networked devices. Stern does not disclose or suggest the features of claim 1 missing from Redmond and Peters, as explained above. Thus, Stern fails to make up for the deficiencies of Redmond and Peters with regard to the features recited in independent claim 1. Claims 9 and 14 depend from claim 1, and claims 9 and 14 are thus considered allowable over any combination of Redmond, Peters, and Stern.

Conclusion

The arguments and amendments presented herein are made for the purposes of clarification and expediting prosecution, rather than to overcome the rejections for patentability. The claims have not been amended to overcome the cited references, and therefore, no

presumption should attach that either the claims have been narrowed over those earlier presented, or that subject matter or equivalents thereof to which Applicants are entitled has been surrendered. Allowance of the claims is respectfully requested in view of the above remarks.

It is believed that the foregoing remarks are fully responsive to the Office Action and that the claims herein should be allowable to Applicants. In the event the Examiner has any queries regarding the instantly submitted response, the undersigned respectfully request the courtesy of a telephone conference to discuss any matters in need of attention.

If there are any charges with respect to this response or otherwise, please charge them to Deposit Account 06-1130.

Respectfully submitted,

CANTOR COLBURN LLP
Applicants' Attorneys

By: Jennifer Pearson Medlin
Jennifer Pearson Medlin
Registration No. 41385

CANTOR COLBURN LLP
20 Church Street
22nd Floor
Hartford, Connecticut 06103

Telephone (404) 607-9991
Facsimile (404) 607-9981
Customer No. 36192

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